

Serial No. 09/517,127
Amdt. dated 6/17/2004
Office Action mailed 12/17/2003

REMARKS

Applicants submit this response which is a duplicate of the response filed May 17, 2004 to address the informalities of the Notice of Non-Compliant Amendment dated June 30, 2004.

Applicants appreciate the indication of allowable subject matter in the present application. Applicants response is responsive to the Office Action dated December 17, 2004 which did not consider Applicants' response filed November 24, 2003 which was apparently not entered. Accordingly, only claims 1-5, 7-29, 31-33, 39-65 and 130-151 were examined in the Office Action.

Applicants hereby add new claims 152-168 and cancel claims 7, 21, 132, and 136. Accordingly, claims 1-5, 8-20, 22-33, 39-65, 67, 130-131, 133-135, 138-144, and 152-168 are pending in the present application.

Claims 1-3, 8-11, 16-20, 22-26, 49-51, 55-57, 130-132, and 136 stand rejected under 35 USC 102(e) for anticipation by U.S. Patent No. 6,136,043 to Robinson et al. Claims 1-3, 8-11, 16-20, 22-26, 49-51, 54-57, 130-132, and 136 stand rejected under 35 USC 102(e) for anticipation by U.S. Patent No. 6,379,538 to Corlett et al.

Applicants respectfully traverse the rejections and urge allowance of the present application.

Claim 1 includes limitations of previously pending claim 7. Claim 1 now recites the connection is adapted to couple with a process fluid supply and is configured to supply process fluid from the process fluid supply to the process chamber. Both Robinson and

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Corlett are directed towards systems monitoring slurry received after processing of workpieces within a processing chamber. Accordingly, Robinson and Corlett fail to teach or suggest the claimed sensor coupled with a connection configured to supply process fluid to a process chamber and to output a signal indicative of the process fluid supplied to the process chamber as claimed. Limitations of claim 1 are not shown nor suggested and claim 1 is allowable for at least this reason.

Applicants note that the status of previously pending claim 7 is unclear inasmuch as the Office Action fails to indicate whether claim 7 was allowed or rejected. In the event that a rejection of claim 1 (now including the limitations of previously pending claim 7) is presented with respect to the prior art, Applicants respectfully request identification *in a non-final action* of elements which allegedly correspond to limitations of the claims in accordance with 37 C.F.R §1.104(c)(2). In particular, 37 C.F.R §1.104(c)(2) provides that *the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified*. Further, 37 C.F.R. §1.104(c)(2) states that the Examiner must cite the best references at their command. When a reference is complex or shows or describes inventions other than that claimed by Applicants, the particular teachings relied upon must be designated as nearly as practicable. The pertinence of each reference if not apparent must be clearly explained for each rejected claim specified. Applicants respectfully request clarification of the rejections with respect to specific references and specific references teachings therein pursuant to 37 C.F.R. §1.104(c)(2) in a *non-final Action* if claim 1 is not found to be allowable.

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The claims which depend from independent claim 1 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Claim 18 includes the limitations of previously pending claim 21. Claim 21 was indicated in the Office Action to be allowable over the prior art. Applicants respectfully request allowance of claim 18 in the next Action.

The claims which depend from independent claim 18 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 49, the Office alleges that Robinson and Corlett anticipate the defined system. Applicants disagree for at least the following compelling reasons.

Claim 49 recites that the sensor is configured to output a signal indicative of accumulation of particulate matter within a connection. The prior art of record fails to teach or suggest any teachings towards the claimed accumulation of particulate matter and claim 49 is allowable for at least this reason.

More specifically, the Office on pages 3-5 of the Action recites teachings of Robinson and Corlett in support of the rejection of claim 49. However, the recitation of the teachings in the Office Action fail to refer to any accumulation of particulate matter as claimed. Further, the identified teachings of Robinson of columns 9-10 refer to monitoring inert dyes to determine when it is appropriate to replace a pad and fail to disclose or suggest any teachings regarding a sensor configured to output a signal indicative of

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accumulation of particulate matter within a connection as claimed. Referring to the teachings of Corlett at columns 3,4 and 7 relied upon in the Office Action, such relate to apparatus for detecting *solids concentration of solids suspended in an aqueous slurry waste stream*. Detection of suspended solids fails to disclose or suggest the claimed sensor configured to output a signal indicative of accumulation of particulate matter within a connection. Robinson and Corlett fail to disclose or suggest positively recited limitations of claim 49 and claim 49 is allowable for at least this reason.

With reference to the above-identified CFR and MPEP sections, Applicants respectfully request specific teachings of the prior art relied upon by the Office and which allegedly disclose provision of a signal indicative of accumulation of particulate matter in a *non-Final action* so Applicants may appropriately respond. Monitoring of dyes or suspended particles fails to disclose or suggest outputting a signal indicative of accumulation of particulate matter within a connection as claimed.

The claims which depend from independent claim 49 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

For example, referring to claim 50, it is recited that the connection is arranged in a substantially horizontal orientation. It is recited in the Action at pages 4-5 that the limitations of claims 50-51 are met "since some part of the connection is horizontal and some part of the sensor is vertical." Applicants disagree with the rejection. Applicants have electronically search both references and have failed to identify any horizontal

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teachings with respect to the connection or vertical teachings with respect to the sensor. It follows that in no fair interpretation may Robinson or Corlett be considered to disclose or suggest limitations of claim 50 and 51 when such references fail to even mention "horizontal" with respect to the connection or "vertical" with respect to the sensor. Applicants again request issuance of a *non-final Action* if claims 50-51 are not allowed or the provision of an affidavit by the Examiner in compliance with MPEP 2144.03 inasmuch as the references fail to disclose the claimed limitations and the only teachings can possibly result from personal knowledge of the Examiner. Applicants request allowance of claims 50-51.

Referring to claim 54, Robinson and Corlett only refer to monitoring of slurry after processing of workpiece and fail to disclosure or suggest the claimed *connection configured to provide process fluid to the process chamber*. Limitations of claim 54 are not shown nor suggested by the prior art and claim 54 is allowable.

Referring to claim 130, it is recited that the connection comprises a connection of a sampling system *configured to provide the fluid in a substantially static state* and the control system is configured to *compare the substantially static process fluid with a signature to determine at least one characteristic of a process fluid*. It is alleged in the Action that it is inherent to provide the process fluid in a substantially static state and the process fluid must be compared with a signature. Applicants disagree and the prior art fails to support the Examiner's allegations. In fact, the prior art teaches away from the Examiner's interpretation. Robinson at col. 9, lines 15-18 refer to the draining solution

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passing through a tube wherein pH or electrical potential is measured. Col. 7, lines 19-15 of Corlett refer to the aqueous solution passing through the solids detection apparatus. Further, Applicants have electronically searched and have failed to uncover any reference to "static" in the prior art references. Limitations of claim 130 are not shown nor suggested by the prior art and claim 130 is allowable for at least this reason.

Further, the reliance upon inherency is misplaced. The Examiner is reminded that, "in relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied prior art." (emphasis added) *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). It does not necessarily flow from the teachings of the prior art that the fluid being monitored is provided in a static state. First, *the references clearly refer to monitoring of fluid passing through a device*. Further, it may be undesirable in the prior art applications to provide the fluid in a static state. Also, both of the prior art references refer to measuring pH or electrical parameters to monitor the fluid and accordingly it also does not necessarily flow from the prior art that a control system of the prior art compares a substantially static process fluid with a signature to determine at least one characteristic of a process fluid as required for proper reliance upon inherency. Limitations of claim 130 are not shown nor suggested by the prior art and claim 130 is allowable for at least this reason.

Referring to claim 138, Corlett discloses monitoring the slurry waste stream received from the process chamber after processing and using the diverter directing the slurry waste

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stream to an appropriate receptacle. Applicants submit that Corlett discloses the diverter controlling flow of an entirety of the waste stream and not merely the flow rate of a component of the process fluid as defined in claim 138. Accordingly, the prior art diverter fails to disclose or suggest the claimed metering device configured to permit flow of a component of the fluid or the control system configured to control the metering device to control a flow rate of the component responsive to the signal. Limitations of claim 138 are not shown or suggested and claim 138 is allowable.

Referring to claim 139, Corlett discloses the pump for directing the concentrate water from the collection tanks after reception from a process chamber to a concentrator apparatus which further separates the clear liquid component from the abrasive solids and concentrates the abrasive solids for disposal. Such teachings fail to disclose or suggest the claimed recirculation system configured to recirculate the process fluid to a homogeneous level. In particular, the teachings of Corlett which have been relied upon as disclosing the claimed recirculation system are clearly directed towards separation of solids from liquid which is opposite to the claimed recirculation to provide the process fluid having a homogenous level. Applicants have searched Corlett and have failed to identify any homogeneous teachings let alone the recirculation of the process fluid to the homogeneous level. Also, Corlett is devoid of disclosing the pump being controlled to recirculate the process fluid responsive to the process fluid being out of specification. To the contrary, Corlett discloses further separation of solids from liquids. Limitations of claim 139 are not shown nor suggested and claim 139 is allowable for at least this reason.

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Referring to claim 140, the Corlett teachings regarding pumping of the slurry waste stream to the claimed concentrator apparatus for further separation of solids from liquids fails is opposite to the claimed recirculation system configured to recirculate the process fluid to the homogeneous level. Accordingly, Corlett teaches away from Applicants' claim 140 invention and at a minimum fails to disclose or suggest positively-claimed limitations of claim 140 and claim 140 is in condition for allowance.

Applicants hereby add new claims 152-168. Support for the new claims may be found at least at Figs. 1-3, 16-20, 22, and 24 of the originally-filed application. New claims 163-168 correspond to respective ones of previously pending claims 4, 5, and 12-15 and are believed to be allowable in view of the allowable subject matter indicated in the Office Action.

Applicants request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

Dated: 7/2/04

By: 
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